Introduction to 3-Statement Modeling

Course Introduction

Course Instructor – Jeff

Jeff Schmidt

VP, Financial Modeling

About Jeff...

Prior to joining CFI, for over a decade, Jeff taught financial modeling and valuation to thousands of students all over the world. Before his career in financial education, Jeff covered approximately 50 companies with a combined market cap of $500 billion during his career in equity research. He also worked in corporate development leading M&A modeling and due diligence, and FP&A, as well as working in investment banking and restructuring. Jeff has a B.S. from Texas A&M University and obtained his MBA from the University of Houston. He is a CFA charterholder.

CFI

Learning Objectives

Link the 3 core financial statements together

Understand model-building best practices

Build a financial projection model with historical data and assumptions

Find the right balance between simple and complex models

Think about crafting assumptions and various forecasting methods

Review and audit your model for potential errors

CFI

What Is a Financial Model

A financial model is a **tool built in a spreadsheet** that's used to **forecast a business's financial performance** into the future and **make business decisions.**

Corporate Decisions

Company performance, strategic planning

Project Finance

Whether to invest in a project

Corporate Transactions

Mergers & acquisitions; raising capital

Investment Decisions

Valuation, equity research, portfolio management

Types of Financial Models

3-Statement Model	DCF Model	Merger Model (M&A)	Capital Raises Model	Leverage Buyout Model

Sum of the Parts Model	Consolidation Model	Budget Model	Forecasting Model	Option Pricing Model

CFI

Hierarchy of Financial Modeling

LBO Analysis — Determine how much leverage can be used to purchase a company

Capital Raising — Analyze the pro forma impact of raising debt or equity

M&A Analysis — Evaluate the attractiveness of potential merger, acquisition, or divestiture

Sensitivity Analysis — Evaluate how sensitive an investment is to changes in drivers

Scenario Analysis — Estimate changes in the value of a business in different possible scenarios

DCF Analysis — Discounted cash flow analysis to value a business, project, or investment

3-Statement Modeling — Income statement, balance sheet, cash flow statement

CFI

Financial Modeling Best Practices

Financial Modeling Guidelines
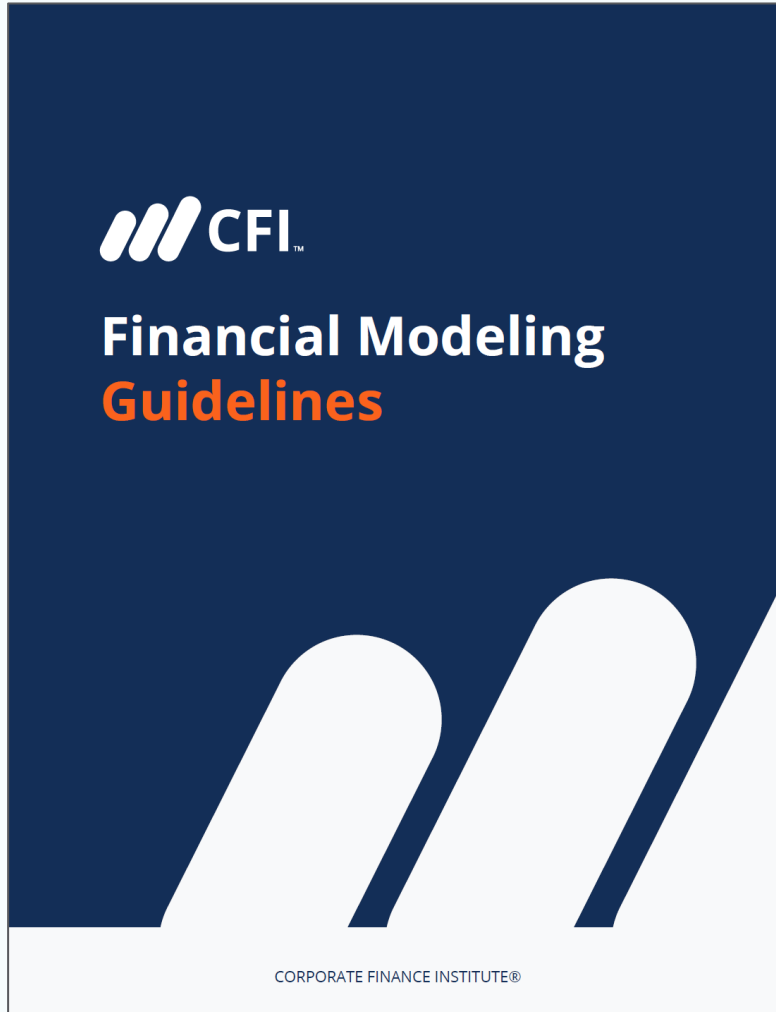
Free to download

Over 95 pages

Covers financial modeling principles & standards
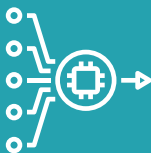
Key Structure for Model Building

Inputs (Assumptions)

- Clearly identified
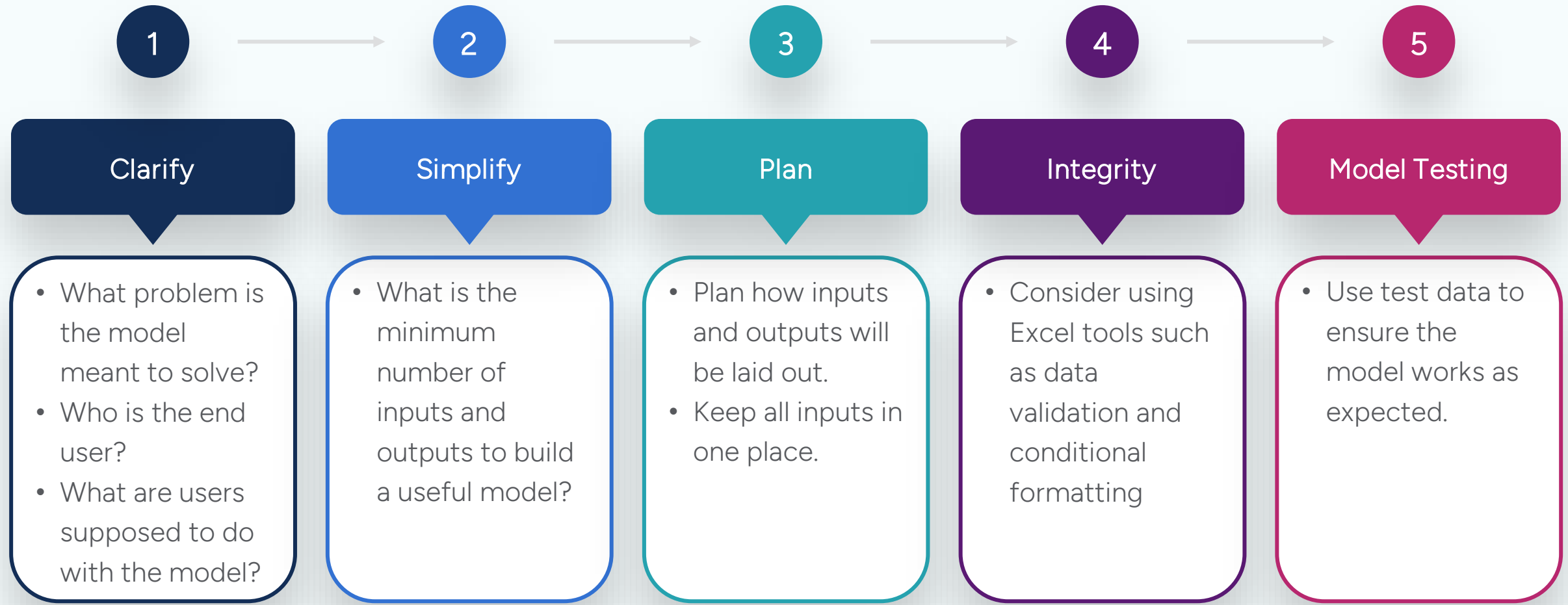- Should only ever be entered once

Processing (Calculations)

- Processing should be transparent
- Broken down into simple steps
- Easy to follow

Outputs (Graphs & Charts)

- Quickly accessible
- Easily updated and exported

CFI

Modeling Best Practices

1 → **2** → **3** → **4** → **5**

Clarify	Simplify	Plan	Integrity	Model Testing
• What problem is the model meant to solve? • Who is the end user? • What are users supposed to do with the model?	• What is the minimum number of inputs and outputs to build a useful model?	• Plan how inputs and outputs will be laid out. • Keep all inputs in one place.	• Consider using Excel tools such as data validation and conditional formatting	• Use test data to ensure the model works as expected.

CFI

Sign Convention

Depending on analyst preferences, **models may be built in several different ways.**

Negative Expenses

Income Statement

All figures in USD thousands unless stated	Year -1	Year 0	Year 1	Year 2
Revenues	86,698	93,086	98,671	104,591
Cost of Goods Sold	(37,756)	(39,639)	(44,402)	(47,066)
Gross Profit	**48,942**	**53,447**	**54,269**	**57,525**
Distribution Expenses	(6,421)	(6,166)	(7,400)	(7,844)
Marketing and Administration	(26,569)	(30,830)	(32,063)	(33,346)
Research and Development	(1,931)	(2,026)	(2,269)	(2,406)
Depreciation	(2,803)	(2,907)	(3,157)	(3,347)
EBIT (Operating Profit)	**11,218**	**11,518**	**9,379**	**10,582**
Interest	(1,240)	(1,240)	(1,240)	(1,240)
Earnings Before Taxes	9,978	10,278	8,139	9,342
Taxes	(2,429)	(1,570)	(2,442)	(2,803)
Net Income	**7,549**	**8,708**	**5,697**	**6,540**
Common Dividends	4,209	2,931	3,988	4,578

Advantages include making the **model easier to follow** and being **able to use the SUM function.**

Many companies **do not report** using this convention.

It may cause some **confusion doing conversions** while building the supporting schedules.

CFI

Sign Convention

Depending on analyst preferences, **models may be built in several different ways.**

Positive Expenses

Income Statement

All figures in USD thousands unless stated	Year -1	Year 0	Year 1	Year 2
Revenues	86,698	93,086	98,671	104,591
Cost of Goods Sold	37,756	39,639	44,402	47,066
Gross Profit	**48,942**	**53,447**	**54,269**	**57,525**
Distribution Expenses	6,421	6,166	7,400	7,844
Marketing and Administration	26,569	30,830	32,063	33,346
Research and Development	1,931	2,026	2,269	2,406
Depreciation	2,803	2,907	3,157	3,347
EBIT (Operating Profit)	**11,218**	**11,518**	**9,379**	**10,582**
Interest	1,240	1,240	1,240	1,240
Earnings Before Taxes	9,978	10,278	8,139	9,342
Taxes	2,429	1,570	2,442	2,803
Net Income	**7,549**	**8,708**	**5,697**	**6,540**
Common Dividends	4,209	2,931	3,988	4,578

Commingled

Income Statement

All figures in USD thousands unless stated	Year -1	Year 0	Year 1	Year 2
Revenues	86,698	93,086	98,671	104,591
Cost of Goods Sold	37,756	39,639	44,402	47,066
Gross Profit	**48,942**	**53,447**	**54,269**	**57,525**
Distribution Expenses	6,421	6,166	7,400	7,844
Marketing and Administration	26,569	30,830	32,063	33,346
Research and Development	1,931	2,026	2,269	2,406
Depreciation	2,803	2,907	3,157	3,347
EBIT (Operating Profit)	**11,218**	**11,518**	**9,379**	**10,582**
Interest	(1,240)	(1,240)	(1,240)	(1,240)
Earnings Before Taxes	9,978	10,278	8,139	9,342
Taxes	(2,429)	(1,570)	(2,442)	(2,803)
Net Income	**7,549**	**8,708**	**5,697**	**6,540**
Common Dividends	4,209	2,931	3,988	4,578

CFI

Sign Convention

Depending on analyst preferences, **models may be built in several different ways.**

Negative Expenses

Shows expenses as negative numbers.

Positive Expenses

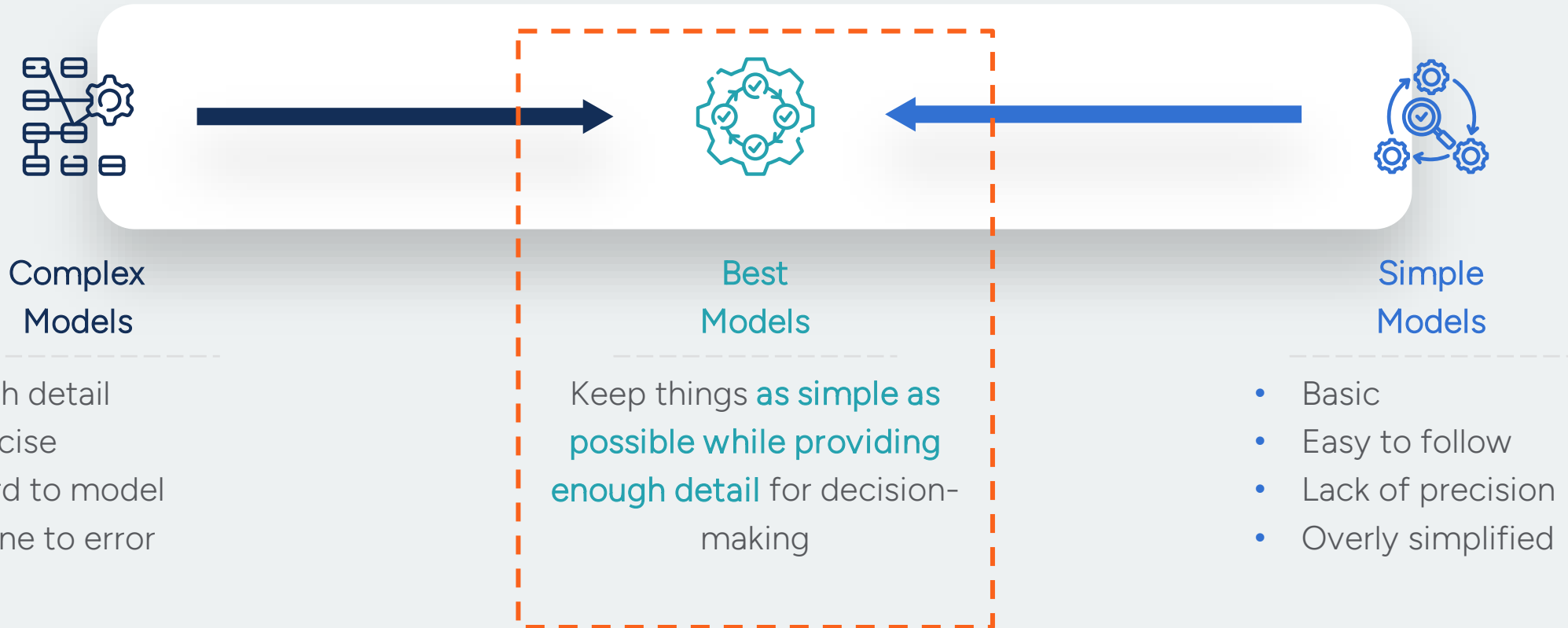Shows expenses as positive numbers.

Commingled

Shows expenses as positive numbers until operating income or EBIT.

We need to **be careful when entering and interpreting data** based on both how the **company reports and how we build** the model.

CFI

Tension – Complex vs. Simple Models

Complex Models

- High detail
- Precise
- Hard to model
- Prone to error

Best Models

Keep things as simple as possible while providing enough detail for decision-making

Simple Models

- Basic
- Easy to follow
- Lack of precision
- Overly simplified

Remember that while it is tempting to make your model complex, it is **important not to overcomplicate the model** with too much detail.

CFI

Model Inputs

Setting Objectives

- Accurate
- Reasonable data ranges
- Easy to use
- Easy to understand
- Easy to update data

Achieving Objectives

- Enter each data once
- Use color to differentiate inputs and outputs
- Use data validation & conditional formatting
- Use comments

Model Processing

Do you try to put all your calculations into as few cells are possible?

Do you ever hide sections of the model?

CFI
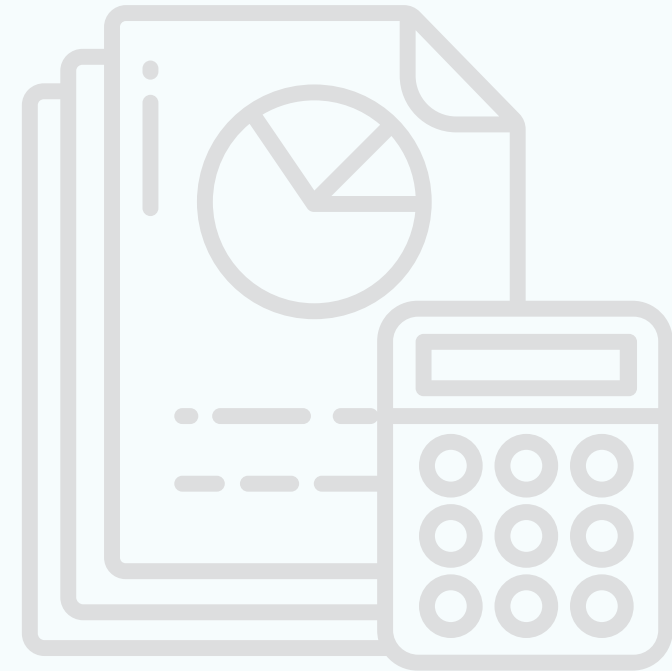
Model Processing

Setting Objectives

- Easy to maintain
- Accurate processing
- Transparency

Achieving Objectives

- Break down complex calculations
- Use comments and annotations
- Use formatting
- Calculate final figures, which will go onto the output reports

Input (Assumptions)
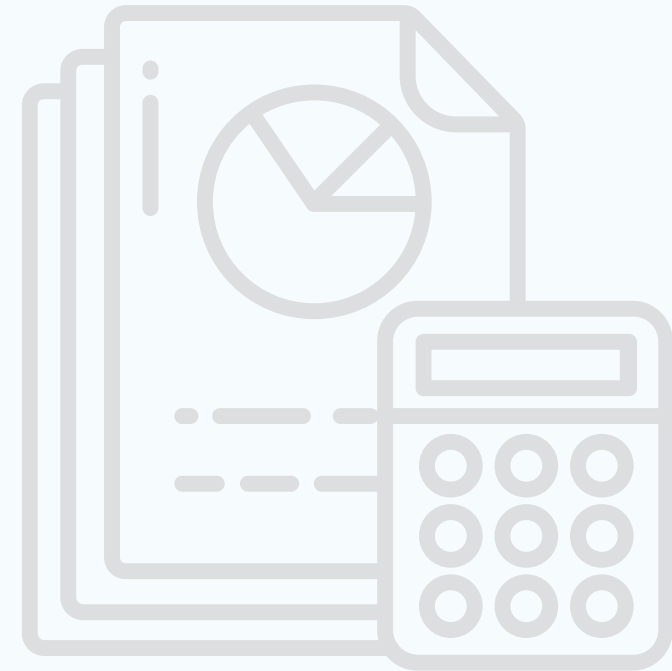
Model Outputs

Setting Objectives

- Provide key results to aid decision-making
- Easy to understand
- Unambiguous

Achieving Objectives

- Make outputs modular
- Consider creating a summary section with only the most important key model outputs

Input (Assumptions)

CFI

Structure and Layout

There are generally two ways to set up your financial model – **multi-spreadsheet and single-spreadsheet.**

Multi-Spreadsheet Approach

Single-Spreadsheet Approach

Structure and Layout

There are generally two ways to set up your financial model – **multi-spreadsheet and single-spreadsheet.**

Multi-Spreadsheet Approach

✓ Easy to link and formula build

✓ Simplifies organization of larger models

Single-Spreadsheet Approach

Structure and Layout

There are generally two ways to set up your financial model – **multi-spreadsheet and single-spreadsheet.**

Single-Spreadsheet Approach

✓ Cleanest

✓ Most organized

✓ Easiest to use

Financial Forecasting Framework

Assumptions & Drivers
Historical ratios and figures that drive the forecast

Income Statement
Summarizes the company's profit and loss

Balance Sheet
Displays the company's assets, liabilities, and shareholders' equity

Cash Flow Statement
Reports the cash generated and spent by a company

Supporting Schedules
Breaks down longer calculations such as PP&E and debt schedule

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1 Historical data

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1 Historical data

2 Assumptions and drivers

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1 Historical data

2 Assumptions and drivers

3 Forecast revenues down to EBITDA

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1 Historical data

2 Assumptions and drivers

3 Forecast revenues down to EBITDA

4 Forecast working capital

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1 Historical data

2 Assumptions and drivers

3 Forecast revenues down to EBITDA

4 Forecast working capital

5 Forecast capital assets (PP&E, CapEx, depreciation, etc.)

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1. Historical data

2. Assumptions and drivers

3. Forecast revenues down to EBITDA

4. Forecast working capital

5. Forecast capital assets (PP&E, CapEx, depreciation, etc.)

6. Forecast capital structure

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1. Historical data

2. Assumptions and drivers

3. Forecast revenues down to EBITDA

4. Forecast working capital

5. Forecast capital assets (PP&E, CapEx, depreciation, etc.)

6. Forecast capital structure

7. Complete cash flow statement

CFI

Financial Forecasting Approach

- Assumptions & Drivers
- Income Statement
- Balance Sheet
- Cash Flow Statement
- Supporting Schedules

Historical	Forecast
B	C
A	D
A	D
A	D
A	D
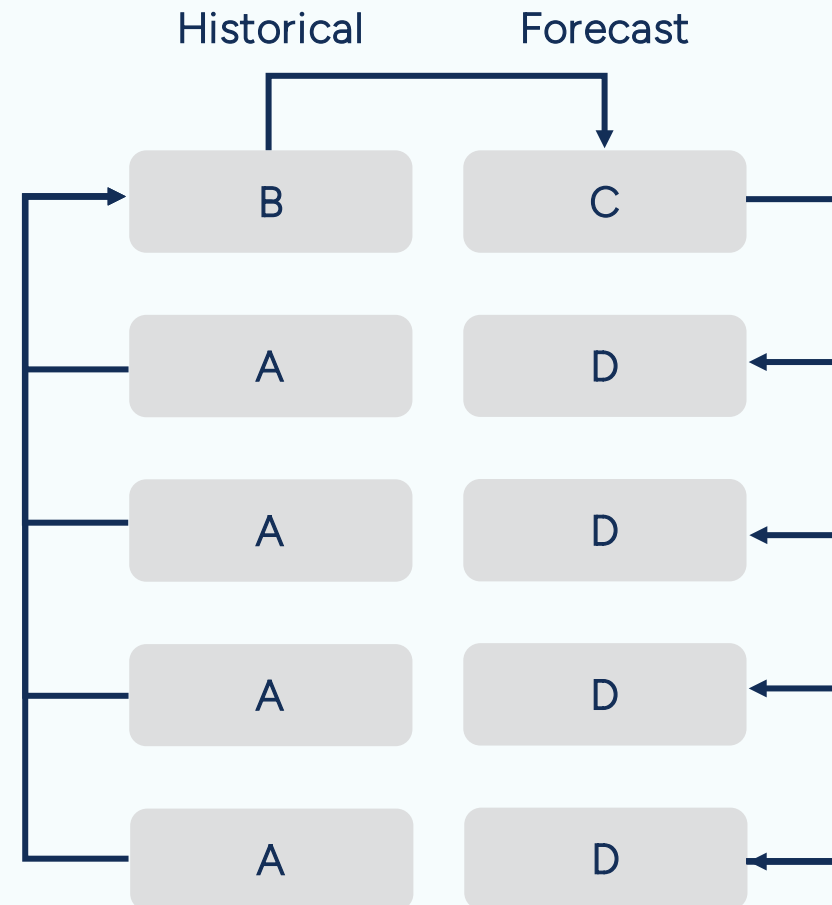
Model Setup and Assumptions

The Case

Let's **work through an example scenario together** on how to efficiently set up model assumptions.

Your boss has just emailed you about something the executive team would like to look at ASAP.

You need to create a financial forecast for a business with limited information.

You only have a set of historical financial statements and some guidance from the company's management team, as well as a template model from a colleague.

You must link the historical financial statements and create a well-built 5-year forecast as fast as possible.

CFI

Forecasting Methods

Broadly speaking, there are **four types of forecasting methods.**

Top-Down Analysis	Bottom-Up Analysis	Regression Analysis	Year-Over-Year Analysis
• Start with total addressable market (TAM) • Work down from there based on market share and segments until arriving at revenue	• Start with most basic drivers of the business (units) • Build up the analysis all the way to revenue	• Analyze the relationship between revenue and other factors using the regression analysis in Excel	• Most basic form of forecasting • Calculate the year-over-year change in revenue

CFI

Forecasting Methods

Broadly speaking, there are **four types of forecasting methods.**

Top-Down Analysis	Bottom-Up Analysis	Regression Analysis	Year-Over-Year Analysis
• Start with total addressable market (TAM) • Work down from there based on market share and segments until arriving at revenue	• Start with most basic drivers of the business (units) • Build up the analysis all the way to revenue	• Analyze the relationship between revenue and other factors using the regression analysis in Excel	• Most basic form of forecasting • Calculate the year-over-year change in revenue

CFI

Forecast Revenues Down to EBITDA

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

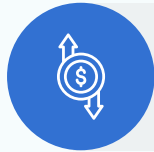Supporting Schedules

1 Historical data

2 Assumptions and drivers
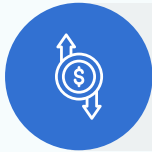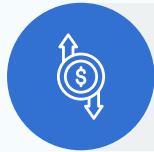
3 Forecast revenues down to EBITDA

» We are going to forecast **revenues, direct operating expenses, and indirect operating expenses** to get to EBITDA.

» Then we will work on the **balance sheet and supporting schedules** so we can forecast depreciation and interest expense.

Forecasting Methods

Now let's look at how to forecast revenues, direct operating expenses, and indirect operating expenses to get to EBITDA.

Income Statement

Revenues

Direct operating costs

Indirect operating costs

-   EBITDA

Depreciation and amortization

Cost of debt   Needs supporting
                                schedules to complete

Taxes

Net income

Forecasting Revenues

Complex Models

First Principles
- **Bottom-Up**
  - (Retail stores) Forecast number of stores, size, and derive revenue per sq. ft.
- **Top-Down**
  - (Telecommunication) Forecast market size and use current market share and competitor analysis to predict revenue.
- **Regression**

Covered in later CFI courses

Simple Models

Quick and Simple
- Use historical figures and trends to predict future growth.
- Easy to audit, yet still robust.
- Easy to perform sensitivity and scenario analysis.

CFI

Forecasting Gross Margin and SG&A Expenses

Revenue	100%
Cost of goods sold	80%
Gross margin	**20%**
SG&A	5%
Operating margin	15%

Forecasting Gross Margin and SG&A Expenses

Revenue	100%
Cost of goods sold	80%
Gross margin	20%
SG&A	5%
Operating margin	15%

There is **not a major difference** in setting cost of goods sold as the target or gross profit as the target.

Use **historical figures or trends** to forecast future margins.

CFI

Forecasting Gross Margin and SG&A Expenses

Revenue	100%
Cost of goods sold	80%
Gross margin	20%
SG&A	5%
Operating margin	15%

There is **not a major difference** in setting cost of goods sold as the target or gross profit as the target.

Use **historical figures or trends** to forecast future margins.

Consider factors such as **economies of scale and learning effects** for labor, materials, and inflation percentage.

CFI

Forecasting Gross Margin and SG&A Expenses

Revenue	100%
Cost of goods sold	**80%**
Labor + materials + inflation %	
Gross margin	20%

There is **not a major difference** in setting cost of goods sold as the target or gross profit as the target.

Use **historical figures or trends** to forecast future margins.

Consider factors such as **economies of scale and learning effects** for labor, materials, and inflation percentage.

CFI

Forecasting Gross Margin and SG&A Expenses

Revenue	100%
Cost of goods sold	**80%**
Labor + materials + inflation %	
Gross margin	20%

Complex Models
- Based on inputs
- Per unit
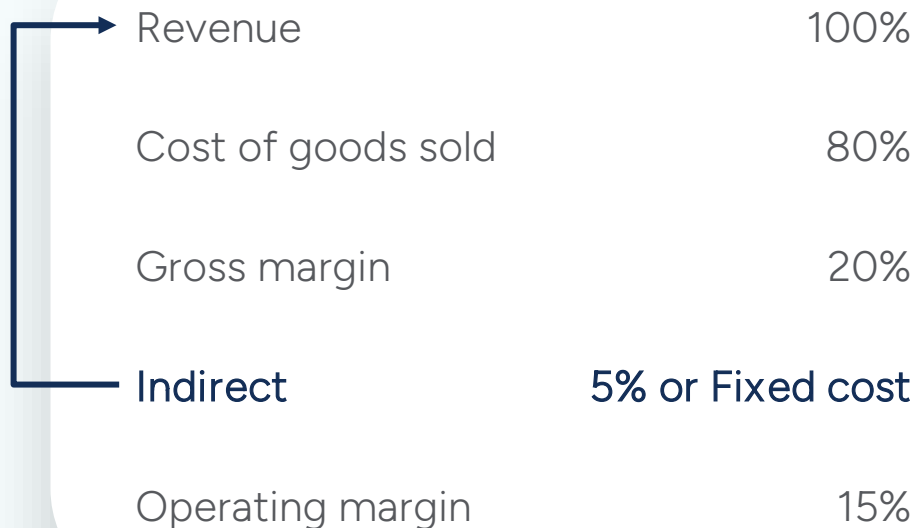
Simple Models
- Based on margin
- Easy to model

There is **not a major difference** in setting cost of goods sold as the target or gross profit as the target.

Use **historical figures or trends** to forecast future margins.

Consider factors such as **economies of scale and learning effects** for labor, materials, and inflation percentage.

Corporate Finance Institute®

CFI

Forecasting Gross Margin and SG&A Expenses

Revenue	100%
Cost of goods sold	80%
Gross margin	20%
Indirect	**5% or Fixed cost**
Operating margin	15%

There is **not a major difference** in setting cost of goods sold as the target or gross profit as the target.

Use **historical figures or trends** to forecast future margins.

Consider factors such as **economies of scale and learning effects** for labor, materials, and inflation percentage.

CFI

Forecasting Gross Margin and SG&A Expenses

Revenue	100%
Cost of goods sold	80%
Gross margin	20%
Indirect	5% or Fixed cost
Operating margin	15%

These indirect costs often include things like **marketing, sales, and general and administrative expenses.**

You may have **a separate schedule that builds the indirect cost with a lot of detail, a hybrid of fixed and variable;** some components are a percentage of revenue, and some components are fixed dollar costs.

CFI

Forecast Working Capital and PP&E

Financial Forecasting Approach
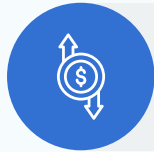
Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1 Historical data

2 Assumptions and drivers

3 Forecast revenues down to EBITDA

4 Forecast working capital

CFI

Forecasting Methods

We are now going to look at the **current assets and current liabilities of the business** that are required to support revenues and expenses.

Balance Sheet

Assets

Current Assets

    Cash

    Accounts Receivable

    Inventory

Non-current assets

Operating (non-current) assets

Liabilities & Shareholders' Equity

Current Liabilities

    Accounts payable

    Other current liabilities

    Long-term liabilities

Shareholders' equity

Common shares

Retained earnings

CFI

Forecasting Methods

Detailed Approach

- Account/client detail
- Inventory management detail

Quick & Simple Approach

- Historical trends
- % of sales based on trends

High Complexity

Moderate Approach

- Receivable days
- Inventory days
- Payable days

Low Complexity

CFI
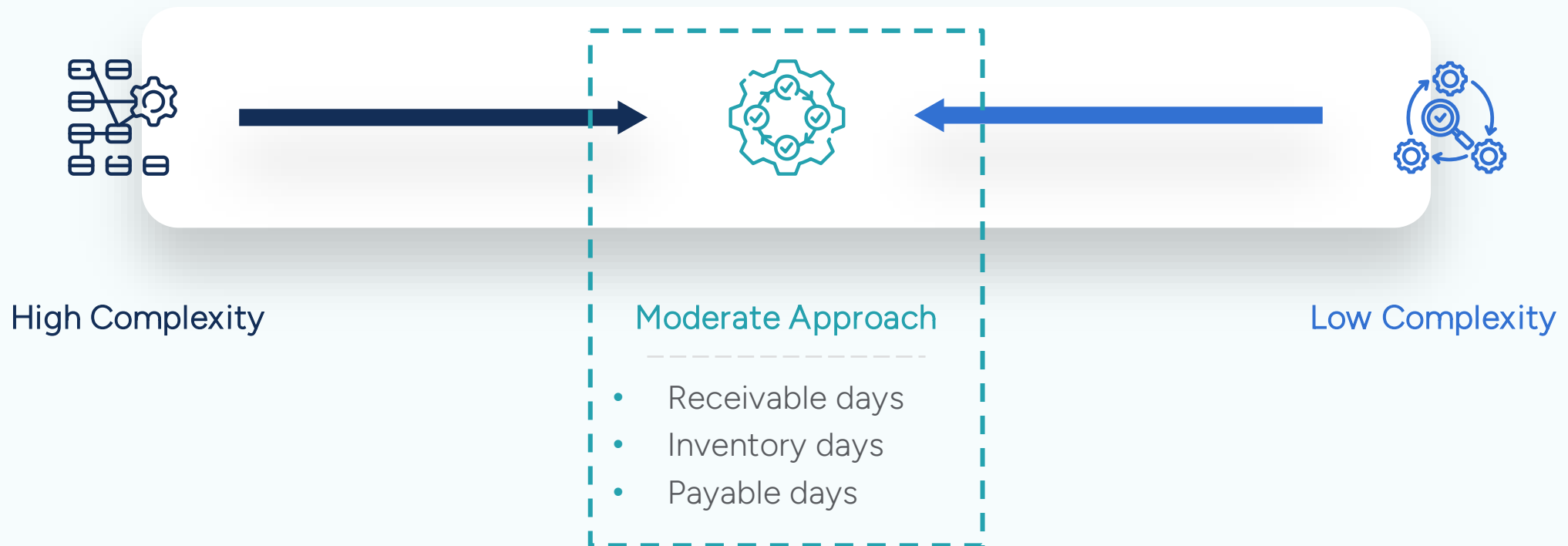
Working Capital Equations – Accounts Receivable

Receivable Days

Payable Days

Inventory Days

Definition

The **number of days** it takes a company **to receive payment on revenue.**

Equations

$$\text{Accounts receivable days} = \frac{\text{Accounts receivable}}{\text{Sales}} \times 365$$

$$\text{Forecast receivables} = \frac{\text{Account receivable days}}{365} \times \text{Sales}$$

Example

$$\text{Accounts receivable days} = \frac{1,000}{10,000} \times 365 = 0.1 \times 365 = 36.5 \text{ days}$$

Companies want their accounts receivable days to be **as low as possible.**

Corporate Finance Institute®

CFI

Working Capital Equations – Accounts Payable

Receivable Days

Payable Days

Inventory Days

Definition

The **number of days** it takes a company **to make payments on expenses.**

Equations

$$\text{Accounts payable days} = \frac{\text{Accounts payable}}{\text{Cost of sales}} \times 365$$

$$\text{Forecast accounts payable} = \frac{\text{Accounts payable days}}{365} \times \text{Cost of sales}$$

Example

$$\text{Accounts payable days} = \frac{2{,}000}{6{,}000} \times 365 = 122 \text{ days}$$

The **longer that a company can take to pay its expenses, the better** because the company gets to keep that cash.

CFI

Working Capital Equations – Inventory Days

Receivable Days

Payable Days

Inventory Days

Definition

The **number of days worth of inventory** a company has.

Equations

$$\text{Inventory days} = \frac{\text{Inventory}}{\text{Cost of sales}} \times 365$$

$$\text{Forecast inventory} = \frac{\text{Inventory days}}{365} \times \text{Cost of sales}$$

Example

$$\text{Inventory Days} = \frac{2,500}{9,000} \times 365 = 105 \text{ days}$$

Companies want to carry **as small of an inventory balance as possible** to support the sales that they're going to generate, so they want inventory to turnover quickly.

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1. Historical data
2. Assumptions and drivers
3. Forecast revenues down to EBITDA
4. Forecast working capital
5. Forecast capital assets (PP&E, CapEx, depreciation, etc.)

CFI

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1 Historical data

2 Assumptions and drivers

3 Forecast revenues down to EBITDA

4 Forecast working capital

5 Forecast capital assets (PP&E, CapEx, depreciation, etc.)

» Increased by capital expenditures (CapEx)

» Reduced by depreciation

Forecasting Financial Statements

Now let's **forecast non-current capital assets** for the business, which includes several accounts, such as property, plant, and equipment (PP&E).

Balance Sheet

Assets	Liabilities & Shareholders' Equity
Current Assets	*Current Liabilities*
Cash	Accounts payable
Accounts Receivable	Other current liabilities
Inventory	Long-term liabilities
Non-current assets	*Shareholders' equity*
Operating (non-current) assets/PP&E	Common shares
	Retained earnings

Forecasting Financial Statements

High
Complexity
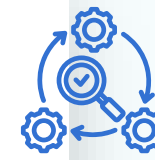
Low
Complexity

First Principles

- Forecast property, plant, and equipment requirements directly (e.g., store expansion).
- Forecast depreciation/amortization based on stated depreciation/amortization policies.
  - If deprecation policies are not available:

$$\text{Average asset life} = \frac{\text{Gross assets}}{\text{Depreciation expense}}$$

Quick and Simple Approach

- Forecast depreciation & amortization as a percentage of opening PP&E balance or percentage of revenue.
- Forecast PP&E balance based on a capital asset turnover ratio.

CFI

Forecasting Financial Statements

Capital Asset Turnover Ratio

$$\frac{\text{Sales}}{\text{PP\&E (end of period)}}$$

Or

$$\frac{\text{Sales}}{\text{PP\&E (average)}}$$

Shows us how much capital assets a company has required to generate revenue historically.

We want the ratio consistent over time unless we believe the ratio could improve or deteriorate.

CFI

Forecast Capital Structure

Financial Forecasting Approach

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

1. Historical data
2. Assumptions and drivers
3. Forecast revenues down to EBITDA
4. Forecast working capital
5. Forecast capital assets (PP&E, CapEx, depreciation, etc.)
6. Forecast capital structure

CFI

Forecasting Financial Statements

The financing structure affects **both the balance sheet and the income statement** (i.e., interest).

Balance Sheet

Assets

Current Assets

Cash

Accounts Receivable

Inventory

Non-current Assets

Operating (non-current) assets/PP&E

Liabilities & Shareholders' Equity

Current Liabilities

Accounts payable

Other current liabilities

Non-current Liabilities

Long-term liabilities

Shareholders' equity

Common shares

Retained earnings

CFI

Forecasting Financial Statements

> Do we want to **model the status quo** for this company, or do we want to **model a different capital structure** in the future?

1

Debt & Equity Values Held Constant

---

i.e., If 10 million of debt matures, it would be refinanced by the exact amount.

CFI

Forecasting Financial Statements

> Do we want to **model the status quo** for this company, or do we want to **model a different capital structure** in the future?

1

Debt & Equity Values Held Constant

2

Debt/Equity x Ratio Held Constant

---

i.e., If a company issues equity, it would also increase debt in a way that keeps the debt-to-equity ratio the same.

Forecasting Financial Statements

Do we want to model the status quo for this company, or do we want to **model a different capital structure** in the future?

1

Debt & Equity Values Held Constant

2

Debt/Equity x Ratio Held Constant

3

Debt/Equity Change Over Time Based on Cash Flow

i.e., If a company has negative cash flow, it would issue debt or equity to cover it.

Forecasting Financial Statements

Do we want to **model the status quo** for this company, or do we want to **model a different capital structure** in the future?

1 — Debt & Equity Values Held Constant

2 — Debt/Equity x Ratio Held Constant

3 — Debt/Equity Change Over Time Based on Cash Flow

If there are reasons to tweak the model, you can **change the capital structure later.**

Corporate Finance Institute®

CFI

Complete Cash Flow Statement

Financial Forecasting Approach

Assumptions & Drivers	1 Historical data
Income Statement	2 Assumptions and drivers
Balance Sheet	3 Forecast revenues down to EBITDA
	4 Forecast working capital
Cash Flow Statement	5 Forecast capital assets (PP&E, CapEx, depreciation, etc.)
	6 Forecast capital structure
Supporting Schedules	7 Complete cash flow statement

CFI

Forecasting Financial Statements

A cash flow forecast can be derived from the **balance sheet and income statement.**

Cash Flow Statement

Operating Activities

e.g., revenues, operating expenses

Investing Activities

e.g., sale and purchase of assets

Financing Activities

e.g., issuing shares, raising debt

Net Cash Movement

CFI

Cash Flows From Operating Activities

Let's review cash flow from operating activities.

Cash Flow Statement

Operating Activities

Net income	100
Depreciation	20
Other non-cash items	-
Trade and other receivables	(10)
Inventory	(20)
Trade and other payables	45
	15
Cash from operating activities	135

Income Statement
These are non-cash, and they reduce net income.

Balance Sheet
These are current operating assets and current operating liabilities of the business.

Cash Flows From Operating Activities

Let's review cash flow from operating activities.

Cash Flow Statement

Operating Activities

Net income	100
Depreciation	20
Other non-cash items	-
Trade and other receivables	**(10)**
Inventory	(20)
Trade and other payables	45
	15
Cash from operating activities	135

Accounts Receivable

Increases	Decreases

Corporate Finance Institute®

CFI

Cash Flows From Operating Activities

Let's review cash flow from operating activities.

Cash Flow Statement

Operating Activities

Net income	100
Depreciation	20
Other non-cash items	-
Trade and other receivables	(10)
Inventory	(20)
Trade and other payables	45
	15
Cash from operating activities	135

Accounts Receivable

Increases	Decreases

Inventory

Increases	Decreases

CFI

Cash Flows From Operating Activities

Let's review cash flow from operating activities.

Cash Flow Statement

Operating Activities

Net income	100
Depreciation	20
Other non-cash items	-
Trade and other receivables	(10)
Inventory	(20)
Trade and other payables	45
	15
Cash from operating activities	135

Accounts Receivable

Increases	Decreases

Inventory

Increases	Decreases

Accounts Payable

Increases	Decreases

CFI

Cash Flows From Operating Activities

Let's review cash flow from operating activities.

Cash Flow Statement

Operating Activities

Net income	100
Depreciation	20
Other non-cash items	-
Trade and other receivables	(10)
Inventory	(20)
Trade and other payables	45
	15
Cash from operating activities	135

Accounts Receivable

Increases	Decreases

Inventory

Increases	Decreases

Accounts Payable

Increases	Decreases

CFI

Cash Flows From Investing Activities

We're going to use the information about **specific fixed assets** to derive this cash flow section.

Cash Flow Statement

Investing Activities

Capital expenditures (additions to PP&E)	(120)
Proceeds from disposals of fixed assets	10
Payments for investment in businesses	-
Process from disposals of businesses	-
Cash from investing activities	**(110)**

Investing Activities

Purchases/Payments	Disposals

Net Outflow
The combination of these activities almost always results in an outflow of cash.

CFI

Cash Flows From Financing Activities

We're going to use the **balance sheet and supporting schedules** to complete this part.

Cash Flow Statement

Financing Activities

Issuance of common stock	100
Dividends paid in the year	(5)
Increase/(decrease) in long-term debt	15
Increase/(decrease) in short-term debt	(10)
Cash from financing activities	**100**

Financing Activities

Issuance of stock/Debt Increase	Dividends Payment/Debt decrease

Forecasting Financial Statements

Cash Flow Statement

Operating Activities

e.g., revenues, operating expenses

Investing Activities

e.g., sale and purchase of assets

Financing Activities

e.g., issuing shares, raising debt

Net Cash Movement
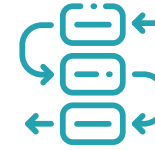
CFI

Review and Audit

Auditing Techniques

Sanity Checks
(Assumptions and Drivers)

Go To Special

Trace Precedents and Dependents

View Formulas

Error Messages and Alerts

Excel Settings

Corporate Finance Institute®

CFI

Course Summary

Final Thoughts

A financial model is simply a tool, and it's a tool that **relies on a set of assumptions.**

Value
The **assumptions determine** whether the model will add **value.**

Function
Focusing too much on details may lead to an **inaccurate model that functions correctly.**

Balance
There is always going to be a balance between **simplicity and complexity.**

CFI

A Modular Approach to Building Models

Assumptions & Drivers

Income Statement

Balance Sheet

Cash Flow Statement

Supporting Schedules

CFI

A Modular Approach to Building Models

- Assumptions & Drivers
- Income Statement
- Balance Sheet
- Cash Flow Statement
- Supporting Schedules
- Discounted Cash Flow (DCF) Analysis
- Sensitivity Analysis
- LBO or M&A

CFI
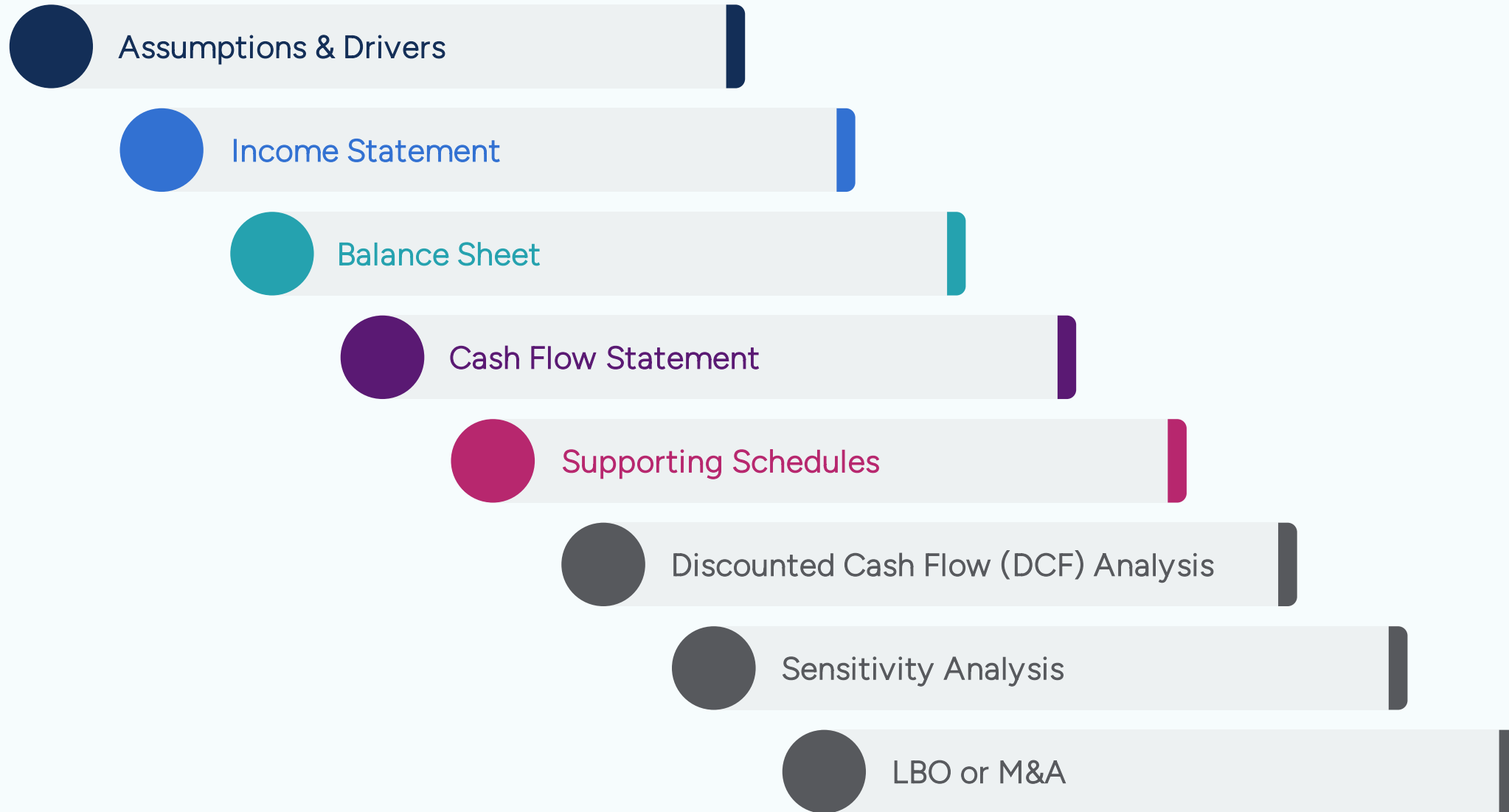
DCF Models, Sensitivity, M&A, LBO, and More

LBO Analysis — Leverage Buyout (LBO) Modeling Course

Capital Raising — Mergers & Acquisitions (M&A) Modeling Course

M&A Analysis — Mergers & Acquisitions (M&A) Modeling Course

Sensitivity Analysis — Scenario & Sensitivity Analysis in Excel Course

Scenario Analysis — Scenario & Sensitivity Analysis in Excel Course

DCF Analysis — Discounted Cash Flow (DCF) Modeling Course / Introduction to Business Valuation Course

3-Statement Modeling — 3-Statement Modeling Course

Corporate Finance Institute®

CFI